



Fig. 1



Fig. 2



CU



Fig. 3



Fig. 4



Fig. 5

UBES

*Simple,
versatile
rehearsal
furniture*

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THE ORNATE PARISIAN rococo settee and the intricately carved Louis Quatorze table will come later. On the first day of rehearsal, actors just need something to play on.

The answer: rehearsal cubes. Cheap, sturdy, and practical, rehearsal cubes can also be pressed into service as actual scenic elements in non-realistic productions. Built with an open end or one hinged side, they will double as storage containers between shows. They're a good beginning drafting and building project for technical theatre students and an excellent way to put otherwise useless pieces of plywood and other lumber to work. Plus, now you can get rid of those ratty sofas and chairs that live in your wingspace and greenroom.

At the most basic level, the rehearsal cube is a five- or six-sided box—not necessarily a perfect cube—built in dimensions that allow it to substitute for a chair, table, couch, or other piece of furniture. There are really no standard sizes, but you will probably make best use of your lumber if you build in increments of 16". The real determinants of size will be the plywood you have available and how you plan on using the finished pieces.

There are many ways to assemble rehearsal cubes; for this article, we will concentrate on a method that is simple, sturdy, and uses joinery that can be adapted to other projects.

Tools and materials for a 16" rehearsal cube

½" BC plywood (may also use ¾" or ¾" AC, OSB, MDF or Luaun; see note on page 50)

Wood glue

Pneumatic stapler or brad nailer

Table saw or panel saw

Drill with 1" hole saw

Jigsaw

Safety glasses

Dust mask

1×1 or 2×2 cleats (optional)

90-degree corner clamps (optional)

Sandpaper/palm sander

Router (optional)

Cut sheet for a 16x16" cube

1. Using a table or panel saw, cut two pieces of ½" plywood at 16" × 16". (These will be the top and bottom panels of the cube.)
2. Cut two pieces of ½" plywood at 15" × 15". (We'll call these sides A and C.)
3. Cut two pieces of ½" plywood at 15" × 16". (Sides B and D.)
4. Using a drill with a 1" hole saw attachment and a jigsaw, cut hand holds into two sides, either A and C or B and D. (Figs 1 and 2)

Assembly

1. Run a bead of wood glue along one edge of the top panel and position one of the 16" sides of panel B on it, perpendicular to the top. (Fig. 3)
2. Using corner clamps (or a helper) to hold the panels in place, fasten the top to the side with brads or a construction stapler. Start at the corners, then the center, then halfway between the center and each corner. (Fig. 4)
3. Repeat for side D on the opposite side of the top panel.
4. Attach side A in one of the openings using glue on each edge and fasteners. (Fig. 5)
5. Repeat for side C in the remaining opening.
6. Following the same procedures, run a bead of glue around the exposed edges of the sides and on the perimeter of the bottom piece. Fit into place and fasten as before.
7. After the glue has cured, sand all edges. You may also tape all seams using gaffer tape.
8. Paint as desired.

Note on materials

Half-inch plywood is actually 1⁵/₃₂" thick, which introduces a variance of 1/32" in the dimensions of the box. For the sake of simplicity, this plan calls for cutting the cube panels as if the pieces were ½" thick, and I promise nobody will notice. If you use 3/8" or 3/4" plywood, adjust the cut sheet accordingly.

OSB is oriented strand board, sometimes called wafer board. MDF is medium-density fiberboard. These engineered wood products are inherently dustier when cutting, and rehearsal cubes made from them will be somewhat heavier than plywood cubes.

Options

You may want to use wood cleats to better secure the edge joints and compensate for the potential loss of strength associated with joining edges of plywood. Cleats cut from scrap (1"×1" × 4") can be placed in corners and edges, glued, and fastened. (One is visible in Fig. 5.)

Leave off the bottom if you want to use the cube for storage. Or attach the top with a piano hinge, allowing the cube to be used as a seat and for storage without having to turn it upside down.

Instead of cutting hand holds, you can attach two rectangular handles constructed from scrap lumber.

An internet search using the words "rehearsal cubes" or "rehearsal furniture" will turn up some alternative construction methods you might want to try. One example: you can frame the cubes in 1×3, 1×4, or even 2×4 lumber, using a pocket hole jig and pocket screws so the joints will all be flat, with a single piece of plywood for the top surface.

Other sizes

Depending on your available materials or your needs, you may wish to construct cubes of other sizes. The variation in sizes may better approximate actual furniture heights.

18" × 18" × 18": a standard chair seat has a height of 18". Using several together can approximate a sofa.

30" (H) × 18" (W) × 18" (L): a standard table top height is 30". Using multiples of these, you can create a table by adding a plywood top.

18" (H) × 18" (W) × 32" (L) or 48" (L) for a coffee table or bench. You will want to add additional bracing to strengthen the box due to its longer length.

Costs

If you build with newly purchased materials, a 16" cube will cost between \$20 and \$36, depending on the quality of materials used. The durability and strength of good-quality materials is well worth the extra cost. ▼

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